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10/591,861	09/06/2006	Joachim Prokscha	R.307204	3440

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EXAMINER	
DESAI, NAISHADH N	

ART UNIT	PAPER NUMBER
2834	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/591,861	PROKSCHA ET AL.	
	Examiner	Art Unit	
	NAISHADH N. DESAI	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 October 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *14-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *14-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 September 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 14-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagasaki et al (US 6127760) in view of Amendola et al (US 4629918)

1. Regarding claim 14, Nagasaki et al teaches:

A primary element for an electrical machine, comprising (pre-amble, patentable weight not given):

a magnetically conductive body assembled from laminations resting axially on one another and having a plurality of axially extending teeth disposed in a star pattern (abstract and Fig 5),

a winding of individual annular coils which are wound separately as coil-body-less air coils and thrust radially onto the teeth (Figs 5 and 6 and C 1 ll 31-37),

a compensation element on at least one face end of the magnetically conductive body (Fig 5,9), and being placed onto each of the face ends, located in a transverse plane to the body axis, of the teeth (Fig 5,8,9), and

the annular coil which is thrust onto the tooth being pressed axially onto the at least one compensation element (Figs 5 and 6), and

a closed ring element joining all the compensation elements together to make a compensation mask (Fig 5,8,9).

Nagasaki et al do not appear to explicitly teach that the compensation element has a transverse strut embodied in gable-like fashion which is elastically deformable in the axial direction of the tooth (Col 5 l 17, of Nagasaki et al does teach that synthetic resin is known to have deformable properties). Amendola et al (Figs 2-5, elements 44,54,96) teaches the use of a spacer in the form of a transverse strut embodied in gable-like fashion. Amendola et al also clearly teaches that the spacers can be made of different shapes, including “a gable like fashion” as claimed. It would have been obvious to a person having ordinary skills in the art at the time the invention was made to modify the device of Nagasaki et al to use the transverse strut embodied in gable-like fashion as taught by Amendola et al (Figs 2-5). The motivation to do so would be that it would allow one to produce a motor wherein the windings are held in a predetermined position (abstract of Amendola et al) and to provide an insulating arrangement which appropriately spaces windings from an associated core while permitting thermal and electrical expansions and contractions of the winding (Col 1 ll 53-57 of Amendola et al).

In regards to claim 14, the method of making limitations are not germane to the patentability of the apparatus and have not been given patentable weight. The patentability of the product does not depend on its method of production. If the product in the product by process claim is the same or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process". In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966(Fed. Cir. 1985). In this instance the case it is obvious that coils can be wound on the teeth or separately and then radially thrust onto the teeth. The motivation to do so would be based on cost, space availability and the overall efficiency desired during assemblage of the device.

2. Regarding claim 15, Nagasaki et al teaches (Fig 5) a compensation mask to be provided on each face end of the magnetically conductive body.

3. Regarding claims 16 and 17, Nagasaki et al teaches (Fig 5) parallel ribs embodied on the outer face, facing away from the tooth, of the compensation elements (Fig 5,6b), the ribs being spaced apart from one another in the radial direction of the tooth (Fig 2,6D).

4. Regarding claims 18-21, Nagasaki et al teaches that the compensation element has the shape of a U and two short legs of the U integrally extending from the transverse strut (Fig 5,6A and 6B); and wherein the transverse strut covers the face end of the tooth, and the legs of the U reach over the long sides, facing away from one

another, of the tooth (Fig 5,6A and 6B). Nagasaki et al teaches also that the ribs are shaped in one piece from the gable-like transverse strut (Fig 2, 6D). Amendola et al clearly teaches a gable like strut in Figs 2-5. Nagasaki et al and Amendola et al discloses the claimed invention except for the shape or size of the strut to be in the shape of a gable. It would have been a matter of obvious engineering design choice to make the strut in the shape of a gable, since such a modification would have involved a mere change in the shape of a component. The motivation would be based on the parameters of space availability, stator's and housing's size/shape, location of the rotor with respect to the stator, as well as size/ and shape of the stator to determine the shape or size of the strut.

5. Regarding claims 22 and 23, Amendola et al (Figs 2-5 elements 44,54,96) teaches the gable-like transverse strut to comprise two faces forming a ridge allowing for a spring travel to be present for resilient retraction. It would have been an obvious matter of design choice to make a spring travel present for resilient retraction of the transverse strut between the gable faces and the face end of the tooth, since such a modification would have involved a mere change in the shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art. *In re Rose, 105 USPQ 237 (CCPA 1955).*

6. Regarding claim 24, Nagasaki et al teaches that the ring element is formed by a preferably thin-walled annular sleeve (Fig 5,10), from whose outer wall the compensation elements protrude in a star pattern (Fig 5,7a).

7. Regarding claim 25, Nagasaki et al teaches the annular sleeve comprises a protruding portion, which protrudes axially past the transverse struts of the compensation elements (Fig 1,6a-e and 10) and which, when annular coils have been placed on the teeth, covers the undersides of the coil heads of the annular coils (Fig 5,8 and 9).

8. Regarding claims 26 and 27, Nagasaki et al teaches the annular sleeve and the compensation elements are made in one piece (Fig 5,10) as a plastic injection-molded part (Col 5 ll 16-19).

Claims 28-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagasaki et al (US 6127760) and Amendola et al (US 4629918) in view of Uchida et al (US 5763978).

9. Regarding claims 28-30, Uchida et al teaches one insulation strip each resting on the one hand between the long sides (Fig 3,32 of Uchida et al), facing away from one another (Fig 3 of Uchida et al), of the teeth and on the other between the inner long sides, oriented toward the aforementioned long sides (Fig 3 of Uchida et al), of the annular coils pressed onto the teeth (Fig 3 of Uchida et al).

Nagasaki et al teaches the device as claimed above. Nagasaki et al do not appear to explicitly teach that the compensation element has “a transverse strut embodied in gable-like fashion”. Amendola et al (Figs 2-5, elements 44,54,96) teaches the use of a spacer in the form of a transverse strut embodied in gable-like fashion. Amendola et al also clearly teaches that the spacers can be made of different shapes, including “a gable like fashion” as claimed. Amendola et al do not appear to teach the use of insulating strip disposed as claimed. Uchida et al teaches the use of insulation strips. It would have been obvious to a person having ordinary skills in the art at the time the invention was made to modify the device of Nagasaki et al and Amendola et al to use the insulation strips of Uchida and dispose them. The motivation to do so would be to insulate the core electrically and allow desired flexural repulsiveness when force is applied or removed (abstract of Uchida).

10. Regarding claim 31, Uchida et al (abstract and Fig 1,10) teaches one insulation strip to be secured, to each of the inner long sides, oriented toward one another, of the annular coils. Uchida et al disclose the use of insulating strips also it is well known in the art to use glue to attach or secure an element.

11. Regarding claim 32, Uchida et al teaches, the insulation strips are angled, on the top side pointing outward of the annular coils (Fig 3,36 of Uchida et al), for the sake of covering these annular coils (Col 4 ll 51-62 of Uchida et al).

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagasaki et al (US 6127760) and Amendola (US 4629918) in view of Hsu (US 6400059).

12. Regarding claim 33, Hsu teaches a hollow-cylindrical short-circuit yoke (Fig 1,611 of Hsu), which is slipped onto the outward- pointing, free tooth faces of the teeth equipped with the annular coils (Fig 1 of Hsu).

Nagasaki et al teaches the device as claimed above. Nagasaki et al do not appear to explicitly teach that the compensation element has “a transverse strut embodied in gable-like fashion”. Amendola et al (Figs 2-5, elements 44,54,96) teaches the use of a spacer in the form of a transverse strut embodied in gable-like fashion. Amendola et al also clearly teaches that the spacers can be made of different shapes, including “a gable like fashion” as claimed. Amendola et al do not appear to teach the use of hollow-cylindrical short circuit yoke disposed as claimed. Hsu teaches the use of a hollow-cylindrical short-circuit yoke slipped onto the teeth equipped with the annular coils. It would have been obvious to a person having ordinary skills in the art at the time the invention was made to modify the device of Nagasaki et al and Amendola et al to use a short circuit yoke as taught by Hsu. The motivation to do so would be that it would provide a motor having high operation efficiency (Col 2 l 36 of Hsu).

Response to Arguments

13. Applicant's arguments with respect to claims 14-33 have been considered but are moot in view of the new ground(s) of rejection.

14. Regarding applicants arguments that Nagasaki et al does not teach that the winding of individual annular coils which are wound separately as coil-body-less air coils and thrust radially onto the teeth and the annular coil which is thrust onto the tooth being pressed axially onto the at least one compensation element is found non persuasive. Examiner reminds applicant that method of making limitations are not germane to the patentability of the apparatus and have not been given patentable weight. The patentability of the product does not depend on its method of production. If the product in the product by process claim is the same or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process". In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966(Fed. Cir. 1985). In this instance the case it is obvious that coils can be wound on the teeth or separately and then radially thrust onto the teeth. The motivation to do so would be based on cost, space availability and the overall efficiency desired during assemblage of the device. For further clarification that it is well known in the art to wind the windings separately examiner would like to point to US 6380648 (Fig 3) which teaches that the windings can be wound separately and then radially thrust onto the teeth as desired. In regards to claim 14, the process limitation of how the windings are formed on the teeth has no patentable weight in claim drawn to structure. Note that a product by process claim is directed to the product per se, no matter how actually made, In re Hirao, 190 USPQ 15 at 17 (footnote 3). See also In re Brown, 173 USPQ 685; In re Luck, 177 USPQ 523; In re Fessmann, 180 USPQ 324; In re Avery, 186 USPQ 161; In re Wertheim, 191 USPQ 90 (209 USPQ 554 does not deal with this issue); and In re

Marosi et al, 218 USPQ 289, all of which make it clear that it is the patentability of the final product per se which must be determined in a product by process claim, and not the patentability of the process, and that an old or obvious product by a new method is not patentable as a product, whether claimed in product by process claims or not. Note that applicant has the burden of proof in such cases, as the above caselaw makes clear.

Therefore, the phrase "winding of individual annular coils which are wound separately as coil-body-less air coils and thrust radially onto the teeth and the annular coil which is thrust onto the tooth being pressed axially onto the at least one compensation element" is thus non-limiting.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 for details.

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NAISHADH N. DESAI whose telephone number is (571)270-3038. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Quyen Leung can be reached on (571) 272-8188. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Quyen P Leung/
Supervisory Patent Examiner, Art Unit 2834

NND